Bruhat Bengaluru Mahanagara Palike

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Tender Notification No: BBMP/2024-25/SE0977 Dated:10-10-2024

ADDENDUM

Sub: Artificial Intelligence based Video Feed Analysis for Identification & Analytics of the Civic & Municipal Infrastructure Issues in BBMP Under Karnataka Public Procurement Portal (KPPP) Platform.

Ref: Tender Notification No: BBMP/2024-25/SE0977, Dt:01-10-2024.

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1. Chapter 2 – Scope of Work

The table in sub-paragraph 7 under paragraph 2.1 shall be replaced by the following table –

S. No	Use Case	Minimum Size which shall be detected	Maximum False Negative permitted (failure to detect an Event or Use Case)	Maximum False Positive permitted (false detection of an Event or Use Case when it does not exist)
1.	Detection of potholes on the road	2 Sq Feet	20%	20%
2.	Detection of cattle on road	NA	20%	20%
3.	Detection of garbage on road	3 Sq feet	20%	20%
4.	Detection of damaged infrastructure	3 Sq feet	20%	20%
5.	Detection of Water Logging areas	3 Sq feet	20%	20%
6.	Detection of Construction in progress on road/public space	3 Sq feet	20%	20%
7.	Detection of Broken Speed Breaker	3 Sq feet	20%	20%
8.	Detection of Road Surface Damage	3 Sq feet	20%	20%
9.	Detection of Road Crack	3 Sq feet	20%	20%
10.	Detection of Stalls on the road	NA	20%	20%
11.	Detection of dirty street road which means physical garbage on the road	3 Sq feet	20%	20%
12.	Detection of encroachment on road which means any structure other than vehicles on the road.	NA	20%	20%
13.	Detection of dirty footpath which means physical garbage on the footpath next to the road.	3 Sq feet	20%	20%
14.	Detection of Electrical Wires Jumble on road	3 Sq feet	20%	20%

15.	*Detection of open manhole*	3 Sq feet	20%	20%
16.	Detection of damaged/ broken Paver	3 Sq feet	20%	20%
17.	Detection of damaged/ broken Kerbstone	3 Sq feet	20%	20%
18.	Detection of flexes, banners or posters	4 Sq feet	20%	20%
19.	Detection of broken / damaged traffic light	NA		
20.	Detection of broken / damaged / overflow dustbins	3 Sq feet	20%	20%
21.	Detection of barricades or road obstruction	3 Sq feet	20%	20%
22.	Detection of median damage	3 Sq feet	20%	20%

"Road" shall mean the Right-of-Way used by the vehicles for movement including the side footpath and the road side drains.

"Road Damage" shall mean a pothole or damage to the surface of the road as ordinarily understood by a human being.

Provided that in actual delivery by the Bid Winner and the demo by each bidder overall False Positive and False Negatives taken all together shall not be more than 20% but an individual Use Case or Use Cases can have False Positive or False Negative upto 35% for each kilometer stretch of road or an area of 2 Sq KM. For example – out of above 22 Use Cases, individual Use Case False Positive or False Negative *may be as high as 35% provided that overall Use Case False Positive or False Negative remain not more* than 20%, Say Use Case 1 to 19 have 10 events each so total 190 events and say False Positive are 22 and False Negative are 15 whereas for Use Case 20 to 22 (three Use Cases) having 20 events each and say the False Positives for each of these three Use Cases is 7 and False Negative for each of these three Use Cases is 6 then the following table tells the number and percentage of False Positives and False Negatives –

Use Case	Total Events	False Positive Number	%age False Positive	False Negative No	%age False Negative
Use Case 1 to 19	190	22	22/190 = 11.6%	15	15/190 = 7.9%
Use Case 20 to 22	60	7 x 3 = 21	21/60 = 35%	6 x 3 = 18	18/60 = 30%
Use Case 1 to 22	250	43	43/250 = 17.2%	33	33/250 = 13.2%

So in above example as overall False Positive is 17.2% and False Negative are 13.2% which is less than maximum permitted 20% hence the performance is acceptable even though in individual 3 Use Cases the False Positive are 35% and False Negatives are 30%.

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